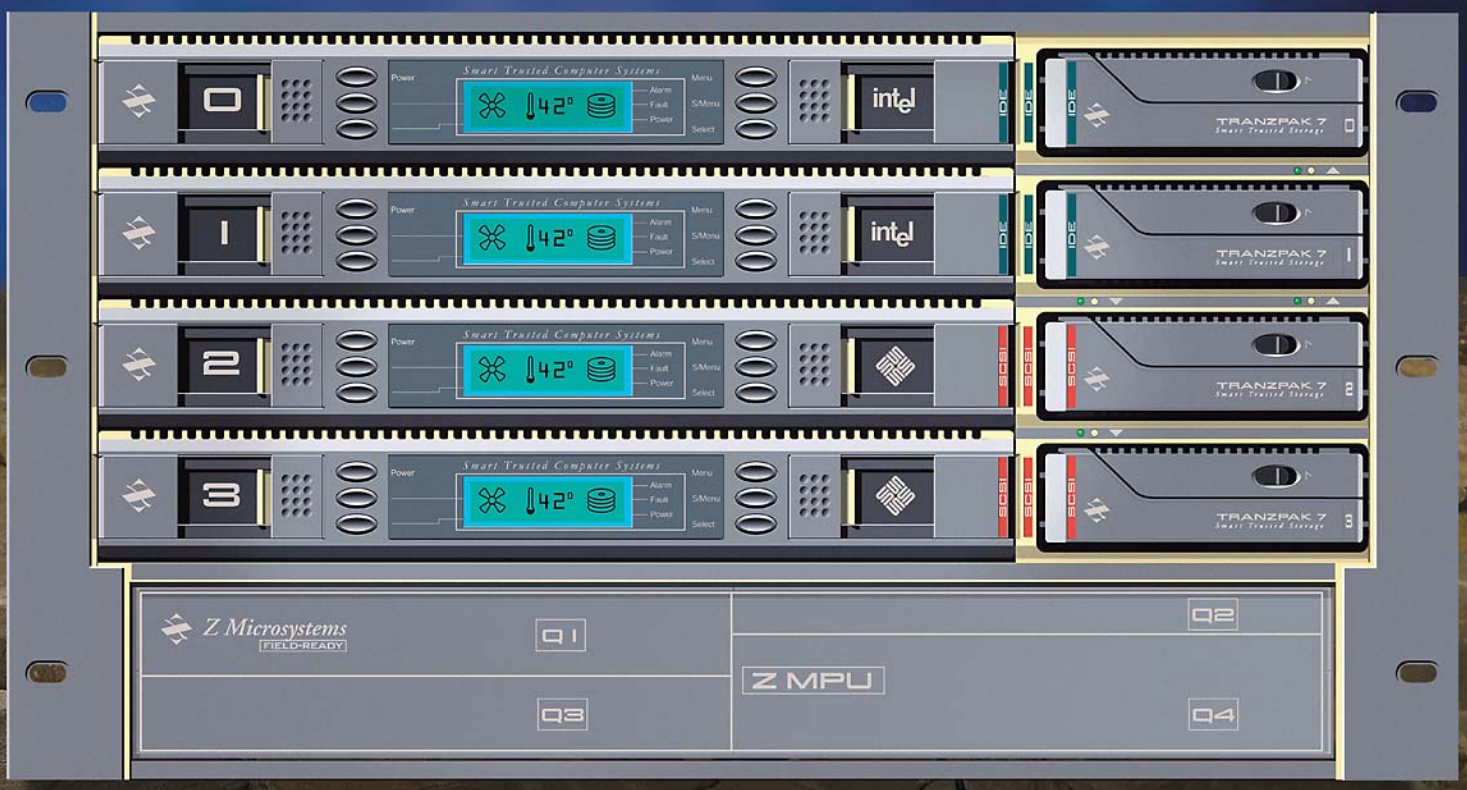
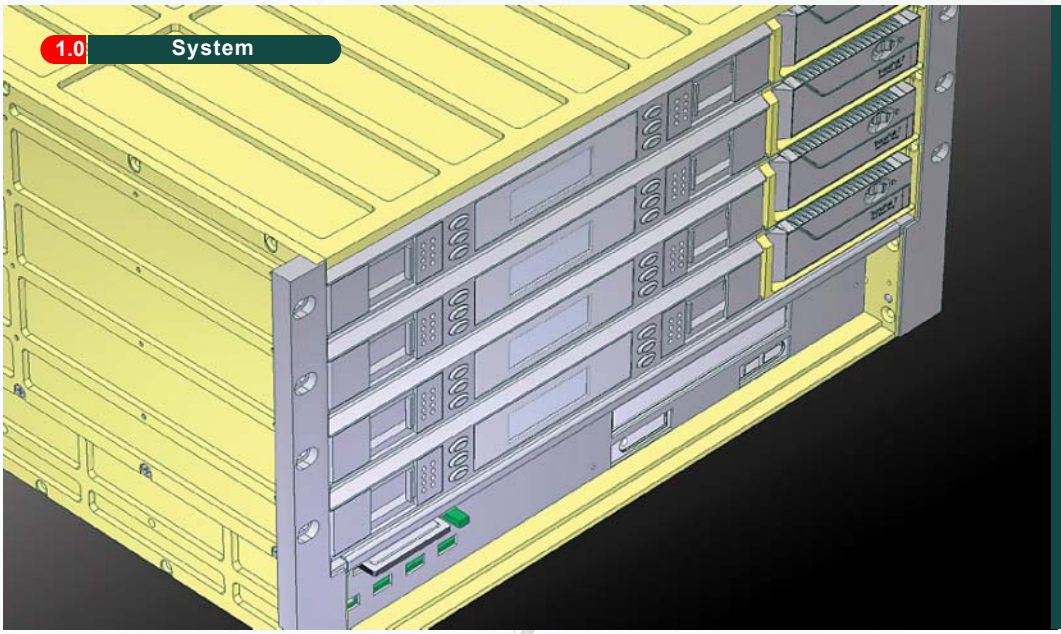
Z Microsystems

Z MPU

FIELD-READY



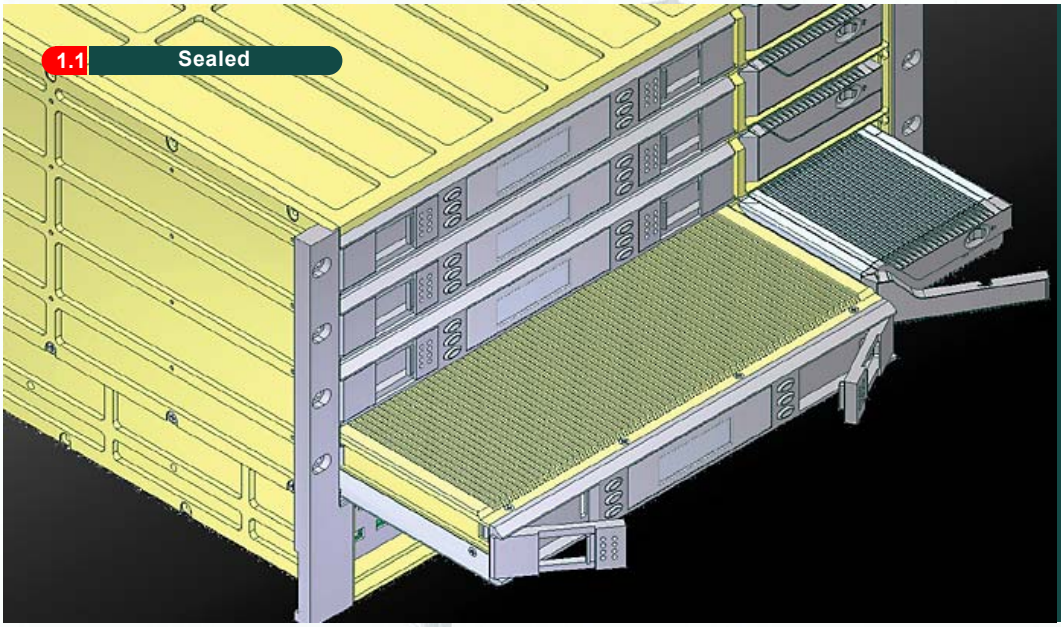


Z MPU

- *Shared Chassis -- Shared Peripherals*
- *Less space, less weight, less power, less cost*

The rugged Z MPU delivers four independent computers. Each computer is an Intel or Sun COTS computer encased in its own environmentally sealed hot swappable module.

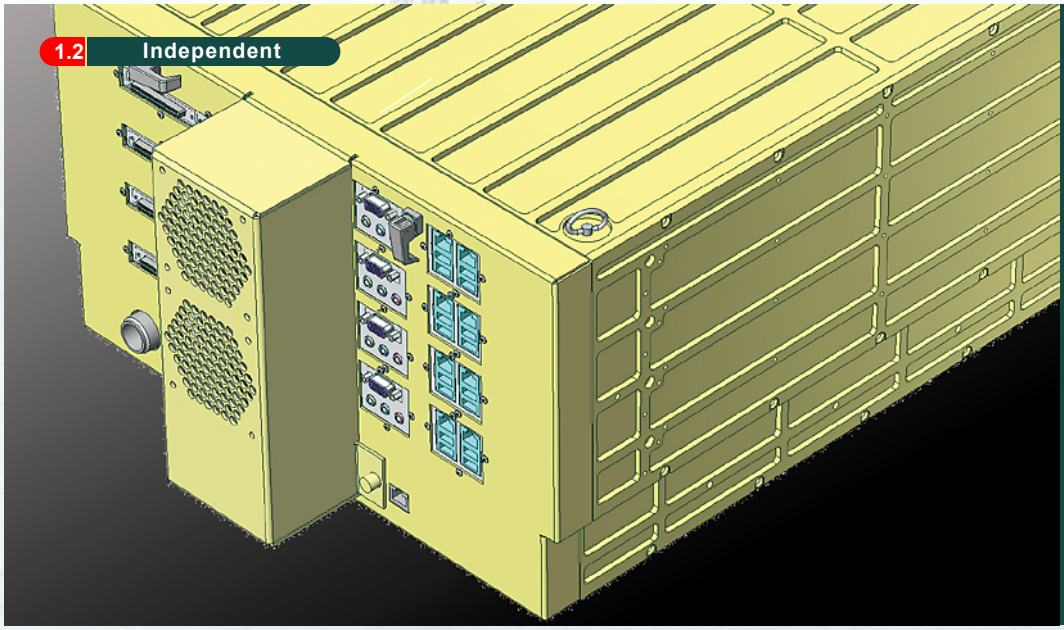
Each computer is a complete stand alone system with its own dedicated boot disk.



- *Hot swappable Sealed Computer Modules (SCM) and Disk modules*
- *Mix & match platforms and OS's*

The chassis can be quickly populated with SCM's and hard drives, and can be mixed and matched with Intel and Sun motherboards using IDE and SCSI hard drives.

Each hot pluggable computer and its dedicated disk module is environmentally sealed against sand and dust, effectively reducing maintenance and increasing reliability and system life.



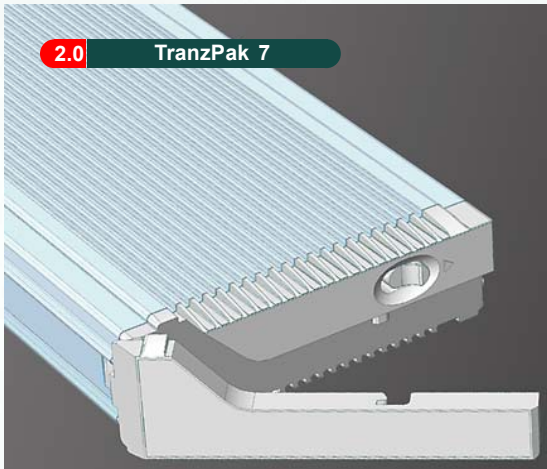
- *Independent Stand Alone Systems*

Four physically and logically separate computers enable different software applications to run independently.

Each computer has its own dedicated TranzPak 7 disk module, its own external I/O connectors, and shared access to support peripherals.

Each computer has two independent USB busses that are matrix-switched to the array of USB peripherals.

2.0 TranzPak 7

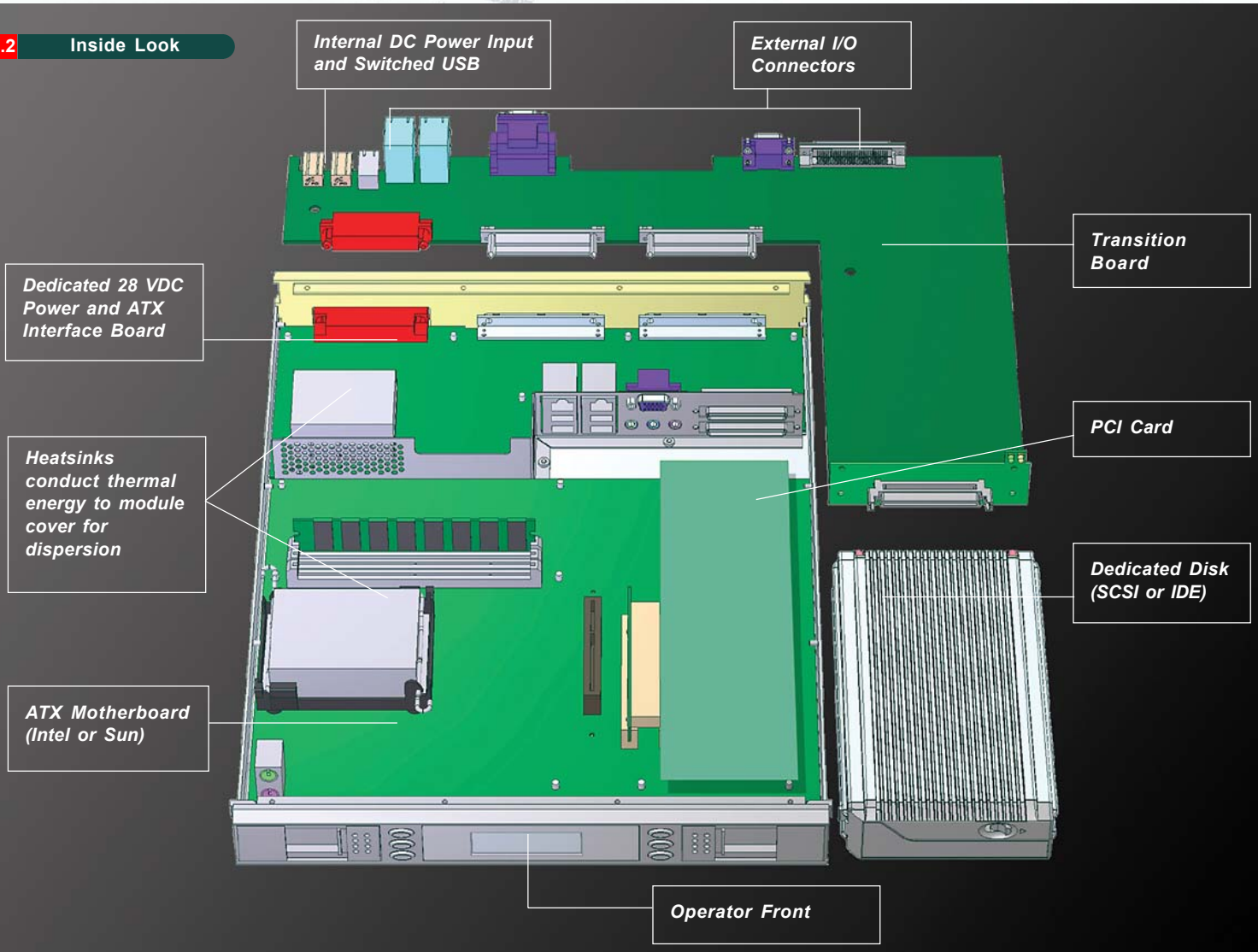


Hot swap TranzPak 7 Modules contain environmentally sealed IDE or SCSI hard drives.

2.1 SCM

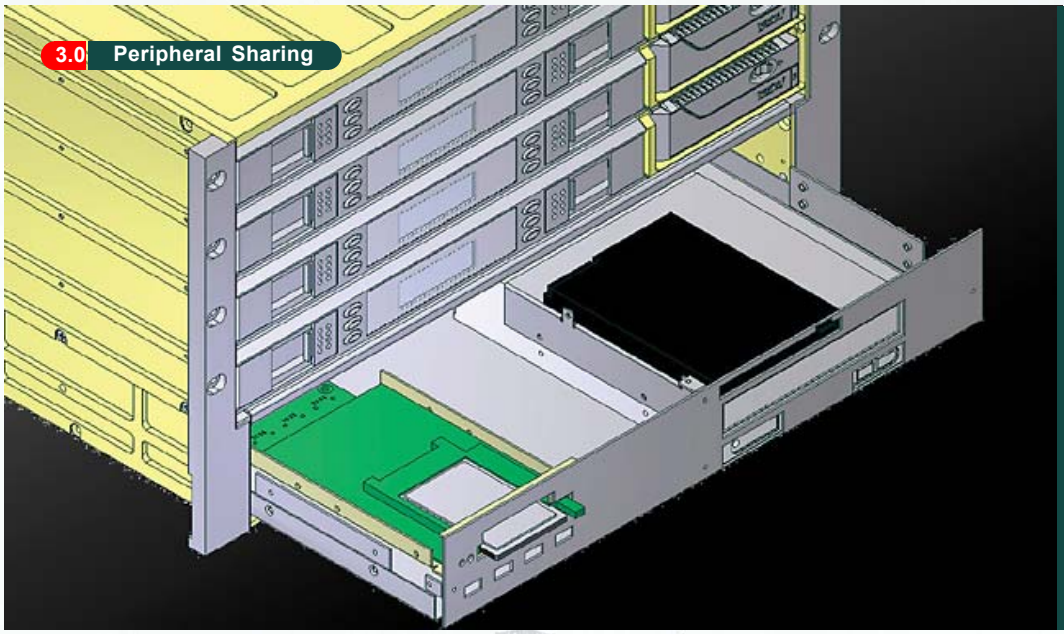
Hot swap SCM's contain environmentally sealed COTS motherboards. Keep your configurations current with the latest Intel/Sun motherboards.

2.2 Inside Look


Internal DC Power Input and Switched USB
External I/O Connectors
Transition Board
Dedicated 28 VDC Power and ATX Interface Board
PCI Card
Heatsinks conduct thermal energy to module cover for dispersion
Dedicated Disk (SCSI or IDE)
ATX Motherboard (Intel or Sun)
Operator Front

Each docking slot has a transition board that mates with the removable SCM and its dedicated TranzPak 7 disk module. Inside each SCM an interface board generates the required voltages and transitions the motherboard's I/O signals to the outside world.

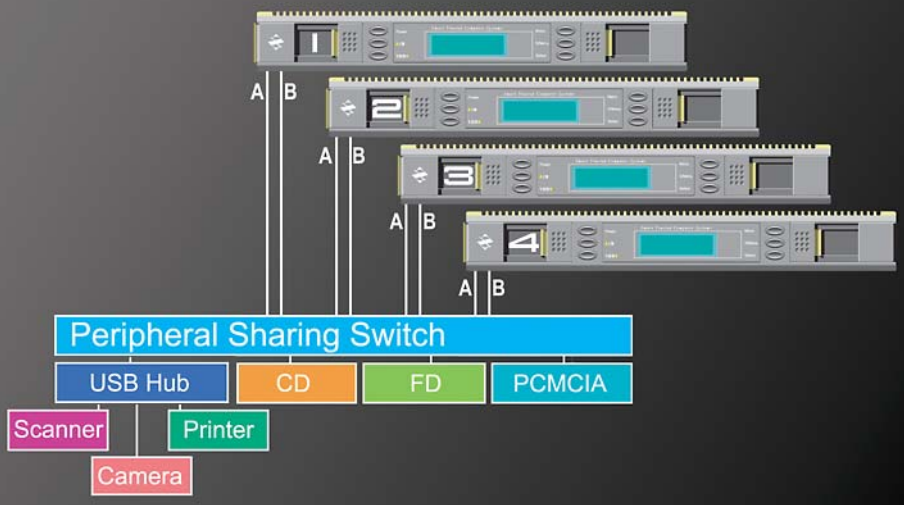
3.0 Peripheral Sharing



- *Shared Peripheral Clusters*

The Peripheral Device Layer organizes an array of the most popular USB devices (CDW, floppy, PCMCIA) and an external hub into four switchable clusters that can be individually and dynamically switched to any SCM.

3.1 Peripheral Cluster

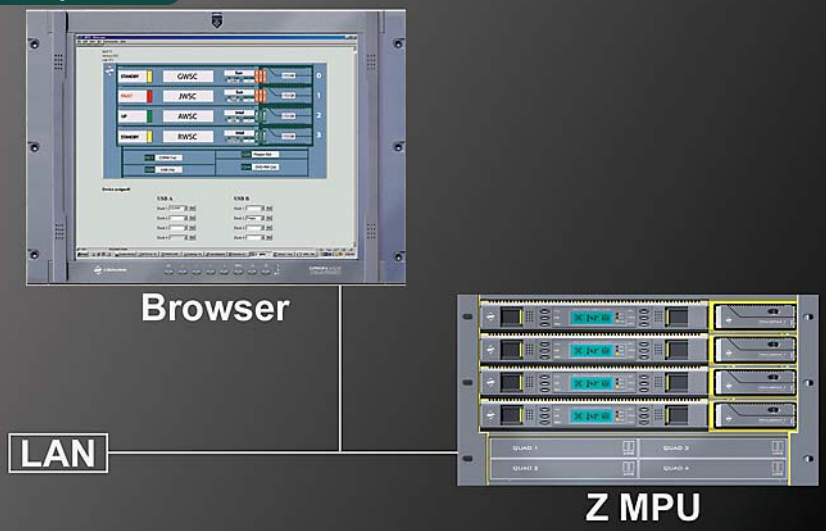


- *Maximum Flexibility*

Each SCM has two independent internal USB busses that are assignable to any of the four peripheral clusters.

Peripheral assignments can be made locally using the front panel or remotely via the SysAdmin network facility.

3.2 Remote SysAdmin



- *Web Based SysAdmin*

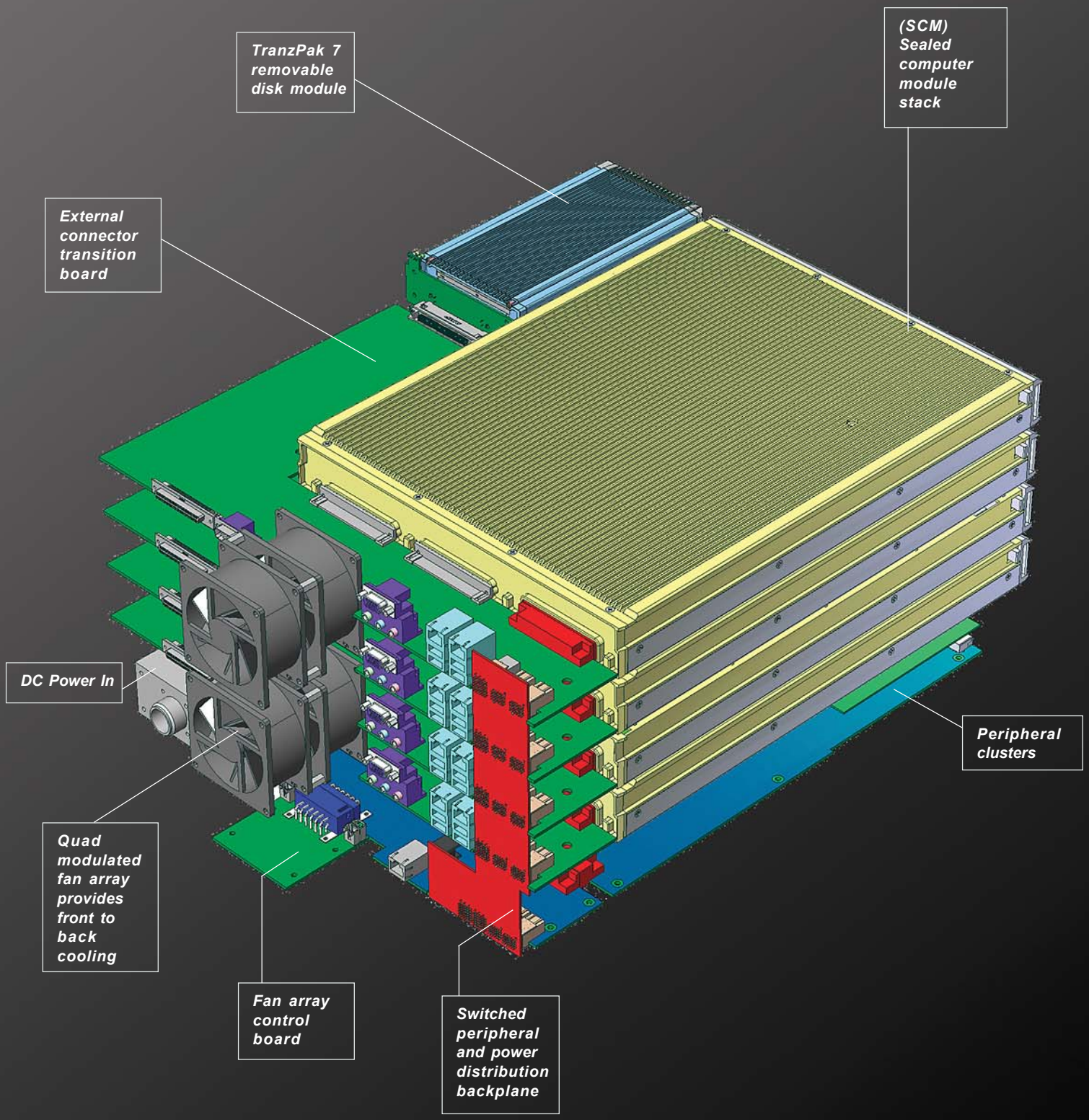
An embedded multiprocessor monitors system health and watch-dog activity.

An HTML web page provides network capability for remote monitoring and system administration.

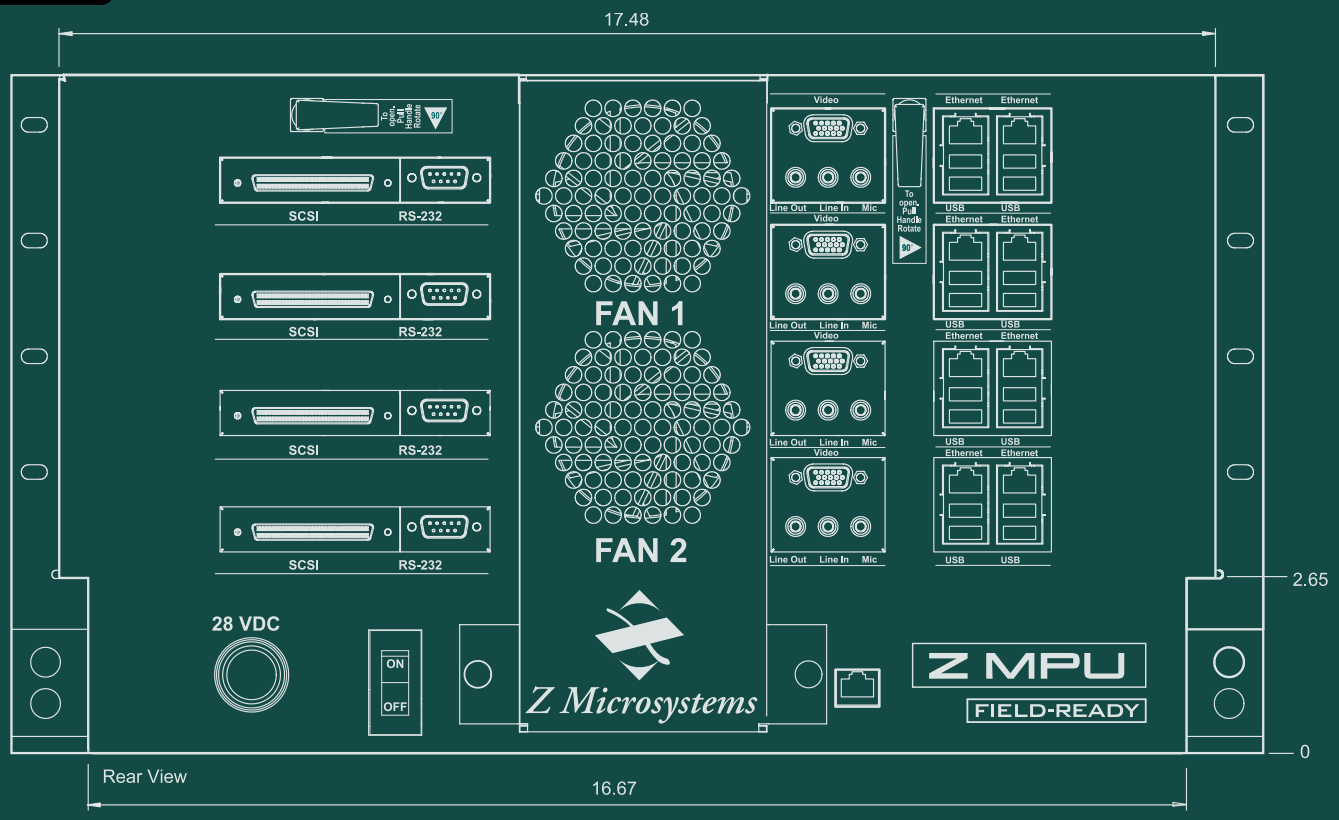
The ability to independently control power, reboot, monitor environmental performance, execute failover strategies, and administer system functions across the network allows the system to be located in “lights out” inaccessible locations.

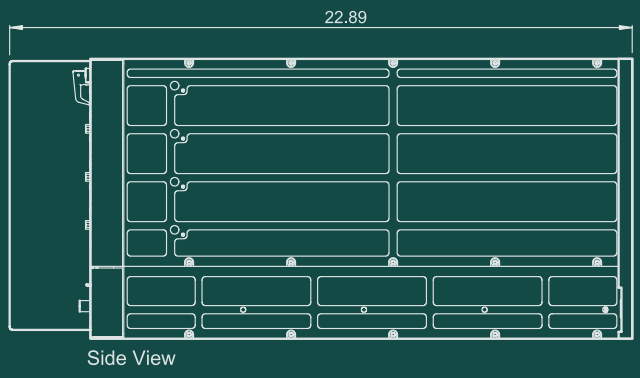
6.0 System Architecture

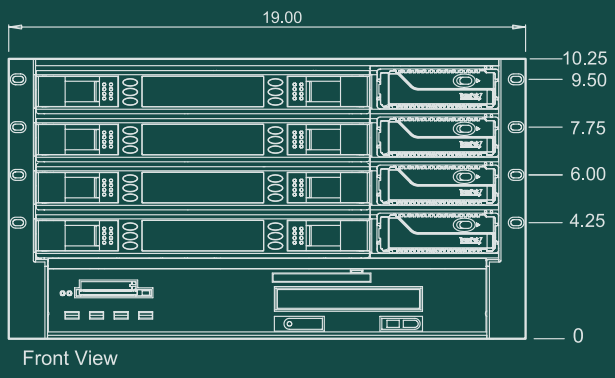
Future Proof Technology Insertion


TranzPak 7 removable disk module
(SCM) Sealed computer module stack
External connector transition board
DC Power In
Peripheral clusters
Quad modulated fan array provides front to back cooling
Fan array control board
Switched peripheral and power distribution backplane

7.0 Schematics







7.1 Specifications

Motherboards	Intel and Sun ATX form factor
Storage Options	SCSI and/or IDE
Dimensions	10.5" H x 17.5" W x 22" D
Net Weight	110 lbs. (depending on device)
Power	
DC Voltage:	22 – 29 VDC
DC Current:	18A @ 28VDC Typ.
AC Voltage:	85 – 264 VAC @ 47-63 Hz
AC Current :	5.6A @ 120VAC Typ.
Environmental	
Operating Temp.	5º to + 50º Celsius
Non Op. Temp.	-40º to + 65º Celsius
Operating Humidity	5% to 95% Non condensing
Non Op. Humidity	5% to 95% Non condensing
Shipping Humidity	5% to 95% Non condensing
Non Op. Altitude	-1,300 to 40,000 ft.
Operating Altitude	-1,300 to 10,000 ft.
Operating Vibration	Wheeled and tracked vehicles, fixed and rotary wing aircraft. Mil-Std-167 (in transit case)
Shock Operating	Mil-Std-810E, Method 516, 30g's
Fungus	Non Nutrients / contaminants
Reliability	
Operating Life	10 years
Maintainability	<20 minutes
Regulatory	
Safety	UL 1950
EMI	FCC Class A
Quality/Workmanship	IPC / ISO 9002 and applicable section of MIL-HDBK-454

7.2 Options

Z MPU 2X

Z MPU 4X

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